



## Exploring the relationship between tolerance of ambiguity of EFL learners and their vocabulary knowledge

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### **Abstract**

Learning a new language is akin to exploring an unknown land as ambiguous situations are prevalent in language learning. Ambiguity tolerance, which can hinder or facilitate language learning, is considered as an important learning style. The purpose of the present study was to understand how tolerant/intolerant EFL learners are of foreign language ambiguities in addition to exploring whether tolerance of ambiguity of EFL learners affects their vocabulary knowledge. The study also aimed to probe whether there is any gender-related difference in tolerance of ambiguity of EFL learners and investigated whether ambiguity tolerance is related to self-perceived success of Turkish EFL learners in foreign language vocabulary. This study was conducted with 60 freshmen enrolled in the English Language Teaching (ELT) Department of a state university in Turkey. The data collection instruments consisted of the Second Language Tolerance of Ambiguity Scale and the Vocabulary Levels Test. The data were analyzed descriptively using the SPSS 21 Software. The findings of the study revealed that EFL learners have a moderate level of ambiguity tolerance in foreign language learning and that gender does not have any significant impact on tolerance of ambiguity. It was also found that there is no significant relationship between tolerance of ambiguity and vocabulary knowledge whereas a significant relationship between tolerance of ambiguity and self-perceived achievement in foreign language vocabulary learning was identified. In the light of the findings, some practical recommendations were noted.

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**Keywords:** Ambiguity tolerance; gender difference; vocabulary knowledge; EFL learners; foreign language learning

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### **1. Introduction**

In recent years, the most important change in the area of teaching and learning a second/foreign language has been a shift from an emphasis on the language teaching methodology to language learners and learner variables that affect language learning. As a result of this change in focus, individual differences and learning styles have widely gained importance as they are considered to play a vital role in helping learners to have better achievement in language learning. One of the most important learning styles is ambiguity tolerance (AT) which is defined as "the degree to which you are cognitively willing to tolerate ideas and propositions that run counter to your own belief system or structure of knowledge" (Brown, 2000: 119). As Ely (1989) states, language learning is full of uncertainty and there is a considerable amount of ambiguity in learning a foreign language. In an L2 context, learners are likely to have some difficulties in constructing meaningful interpretation due to

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the inadequacy of linguistic cues (Chapelle & Roberts, 1986). They barely know the precise meaning of a novel lexical item, believe that they are pronouncing an L2 sound with a total correctness, and comprehend the exact temporal reference of a second language verb form. For some learners, ambiguity is what makes foreign language learning exciting whereas for others it is what makes learning extremely frustrating. Hence, ambiguity is one of the key characteristics of a foreign language learning situation and it is likely to hinder or facilitate language learning. If it is not tolerated in a reasonable manner, it may cause a high level of stress in learners and negatively affect language learning (White, 1999).

This study attempts to investigate tolerance of ambiguity of Turkish EFL learners in relation to such factors as gender and self-perceived achievement in foreign language vocabulary and understand the relationship between tolerance of ambiguity and vocabulary knowledge. The study first introduces Ambiguity Tolerance (AT) and presents a detailed review of related literature. Secondly, the research methodology and findings are described. Then, the findings are discussed in the light of the literature. Finally, the paper ends with a conclusion, limitations and suggestions for further research.

### *1.1. Literature review*

#### *1.1.1 Ambiguity Tolerance (AT)*

The concept of ambiguity has been described in various terms throughout the literature. According to Johnson (2001:141), it refers to ‘uncertainty about the future’. McLain (1993: 183) defines it as ‘perceived insufficiency of information regarding a particular stimulus or context’. *Ambiguity* is also described as ‘too little, too much, or seemingly contradictory information’ (Norton, 1975: 607). Kazamina (1999) suggests that ambiguity is characterized by newness, complication, insolubility and shortage of structure. Ambiguous situation is, therefore, characterized by a lack of adequate cues, which results in insufficient reorganization or categorization by an individual (Budner, 1962). Budner (1962) categorizes ambiguous situations into three basic types: new, complex, and contradictory situations.

The concept of tolerance, on the other hand, implies ‘begrudging acceptance’ while intolerance signifies ‘rejection’. In other words, tolerance entails various reactions moving along a cline from rejection to attraction (McLain, 1993). Therefore, tolerance refers to acceptance of ambiguous situations while intolerance entails recognizing uncertainties as impending sources of uneasiness and threat (Norton, 1975). Tolerance of ambiguity, then, is the way an individual deals with ambiguity when they run into some unknown, complicated or conflicting cues (Furnham, 1994). An individual with low tolerance of ambiguity evidently refrains from ambiguous stimuli while an individual with high tolerance of ambiguity regards ambiguous stimuli as appealing (Furnham, 1994). Ambiguity-tolerant learners learn most effectively when they are given chance of experiences, risks and interactions. On the contrary, ambiguity-intolerant learners learn best in more rigid, more certain, and more structured situations (Reid, 1995). Thus, tolerance of ambiguity can be considered as a quality directly connected with one’s personality or one’s cognitive style (Ely, 1989; Ehrman, 1993, 1994).

#### *1.1.2 Ambiguity Tolerance (AT) and Language Learning Studies*

Learning a new language is akin to exploring an unknown land, as ambiguous situations are prevalent in language learning. As Ely (1989) emphasizes, ambiguity is imagined through uncertainty, which is recognized in a number of language learning occasions. For example, when language learners come across new lexical and grammatical structures, they usually come up against lack of information,

multiple interpretations, unclarity, and so forth (Chapelle & Roberts, 1986; Grace, 1998). Learners are not only expected to deal with linguistic forms and text structures to successfully comprehend texts but also to make up for the lack of vital elements to accomplish the task of comprehension (Grabe & Stoller, 2002). Additionally, they constantly face a wide variety of ambiguous puzzling sounds and feel that they have not pronounced these sounds accurately (Ely, 1989). The prevalent character of ambiguity has a positive or negative impact on language learning. Tolerance of ambiguity is an aspect of foreign language learning that involves an ability to tackle ambiguous new stimuli without annoyance and without requesting for help (Ellis, 1994). Ely (1995) points out three situations in which ambiguity tolerance affects language learning negatively: learning linguistic elements, practising language learning skills, and adopting those skills as constant strategies.

For a successful language learning experience, a learner should be responsive to new situations and interpret his/her reality by means of many different angles. Otherwise, s/he may have some difficulty in mastering a foreign language (Ehrman, 1996). In other words, if a learner is unwilling to acknowledge that a lexical item in the target language may have more than one explicit meaning or that it is not necessary to be familiar with the meaning of every single word so as to understand a text, his/her foreign language development will be seriously hindered (Ely, 1995). In this regard, ambiguity-tolerant learners are likely to be happy with learning a new language in spite of its uncertainties. Research also has revealed that they are eager to take risks and receptive to change (Rubin, 1975; Stern, 1975; Naiman et al., 1978) and show perseverance in language learning (Chapelle, 1983; Naiman, 1975).

Having considered ambiguity tolerance as one of the most important learning styles, which can hinder or facilitate language learning, researchers have carried out some studies on ambiguity tolerance and its impact on language learning. These studies on AT have focused on its relationship to issues such as language achievement (Chapelle, 1983; Kazamia, 1999; Khajeh, 2002; Liu, 2006; Lori, 1990; Nosratinia et al., 2013), reading comprehension (El-Koumy, 2000; Erten & Topkaya, 2009; Kamran & Maftoon, 2012; Keshavarz & Assar, 2009), listening comprehension (Soleimani, 2009), writing performance (Lee, 1999), cloze test performance (Atef-Vahid et al., 2011), and gender (Erten & Topkaya, 2009; Kamran, 2011; Kissau, 2006; Marzban et al., 2012; Maubach & Morgan, 2001). Chapelle (1983), for instance, demonstrates that there is a positive relationship between tolerance of ambiguity and success in multiple choice grammar tests, dictation tests, speaking tests, listening comprehension and imitation tasks. Lori (1990) also suggests that AT correlates significantly with language achievement. In a study conducted by Kazamia (1999), it is mentioned that Greek EFL learners do not have the same tolerance in all language skills, and that they are especially intolerant of ambiguities resulting from conveying their ideas in the target language. Similarly, the study of Liu (2006) shows that EFL learners cannot show tolerance to the ambiguities generated by their inability to communicate their ideas effectively in writing and speaking. Khajeh (2002) who aims to explore the relationship between AT and language proficiency, and language learning strategies reports that a positive correlation exists between AT and both proficiency level and frequency of strategy use. A recent study (Nosratinia et al., 2013) which investigates ambiguity tolerance in predicting EFL learners' language learning strategy reveals statistically significant relationship between tolerance of ambiguity and overall language learning strategy use. In brief, ambiguity tolerance has been found effective in foreign language learning in many research studies.

Focusing on a different point, El-Koumy (2000) examines whether EFL learners with different levels of AT vary in foreign language reading comprehension. The result shows that the moderate AT group outperformed the low and high group. The study of Erten & Topkaya (2009), which explores the tolerance of ambiguity of Turkish EFL learners, demonstrates that while the majority of EFL

learners are of low level in their tolerance of ambiguity, learners' AT, their self-perceived success in reading in a foreign language, and received strategy training correlate significantly. It is concluded from the results that there is a direct correlation between ambiguity tolerance and reading success. Keshavarz & Assar (2009) suggest that high ambiguity tolerance students are likely to be more successful in reading comprehension, display higher metacognitive awareness of reading strategies, and show higher perceived use of metacognitive reading strategies. A recent study carried out by Kamran & Maftoon (2012) also indicates a statistically significant relationship between EFL learners' ambiguity tolerance and their reading comprehension scores.

Tolerance of ambiguity has also been shown to be one of the most effective factors in listening comprehension, writing performance and cloze-test performance. The study of Soleimani (2009) which was conducted to investigate the listening scores of EFL learners with different levels of AT reveals that learners with a moderate level of ambiguity tolerance tend to be more successful in listening. The study of Lee (1999), on the other hand, indicates that the degree of tolerance of ambiguity affects writing performance. It is suggested that tolerance of ambiguity should be regarded as an important factor for the low proficient learners and that clear-cut instructions should be given to reduce the uncertainty in an EFL writing class. In another study focusing on the relationship between the level of ambiguity tolerance and cloze test performance (Atef-Vahid et al., 2011), it is reported that EFL learners with high AT are expected to attain higher scores on the cloze test whereas those with lower AT tend to get lower scores on the same test.

As aforementioned, there have been several studies that investigate the impact of gender on tolerance of ambiguity. Maubach & Morgan (2001) reveals that male students have higher tolerance for ambiguity than female students do. Similarly, Erten & Topkaya (2009) and Marzban, Barati & Moinzadeh (2012) report a significant difference between male and female students in their tolerance of ambiguity with females outperforming males. Nevertheless, there are also some studies (Kissau, 2006; Kamran, 2011) in which no statistically significant difference was found between male and female EFL learners in their ambiguity tolerance.

Up to now, much of research has focused on the relationship between ambiguity tolerance and foreign language learning achievement in general and reported on the important role of AT in foreign language learning achievement. However, there has been no research to date directly investigating the relationship between EFL learners' ambiguity tolerance and their vocabulary knowledge. In this sense, the present study aimed to contribute to the related literature with respect to the impact of ambiguity tolerance on vocabulary knowledge and served to fill a gap in the literature. The study, on one hand, sought to show how tolerant/intolerant EFL learners are of foreign language ambiguities. On the other hand, it explored whether gender difference might exert any impact on ambiguity tolerance. Finally, the study investigated whether tolerance of ambiguity is related to self-perceived success of Turkish EFL learners in foreign language vocabulary.

## *1.2. Research questions*

The purpose of the present study was to understand how tolerant/intolerant EFL learners are of foreign language ambiguities in addition to investigating whether tolerance of ambiguity of EFL learners affects their vocabulary knowledge. The study also aimed to explore whether there is any gender-related difference in tolerance of ambiguity of EFL learners and probed whether tolerance of ambiguity is related to self-perceived success of Turkish EFL learners in foreign language vocabulary. Depending on these concerns, the study had the following research questions:

1. How tolerant/intolerant are EFL learners of ambiguity?
2. Is there any gender-related difference in tolerance of ambiguity of EFL learners?
3. Does level of tolerance of ambiguity of EFL learners affect their receptive vocabulary knowledge?
4. Is tolerance of ambiguity related to self-perceived achievement of Turkish EFL learners in foreign language vocabulary?

## 2. Method

### 2.1. Participants

This study was conducted with a total of 60 freshmen enrolled in the English language teaching (ELT) department of a state university in Turkey in the spring term of the 2014-2015 academic year. Demographic information about the participants is presented in Table 1.

**Table 1.** Demographic information about the participants

Variables		N	%
Gender	Male	19	31.7
	Female	41	68.3
Age	18	12	20.0
	19	24	40.0
	20	7	11.7
	21	4	6.7
	22	6	10.0
	23	2	3.3
	24	1	1.7
	25	1	1.7
	31	1	1.7
	32	1	1.7
Perceived Achievement in English Vocabulary	42	1	1.7
	Poor	13	21.7
	Average	31	51.7
	Good	16	26.7

The mean age of the participants was 20.46 ( $SD = 3.89$ , minimum = 18; maximum = 42), displaying a close age band. Of the participants, 41 (68.3%) were female and 19 (31.7%) were male. A little more than half of the students perceived themselves as having average English vocabulary knowledge ( $n = 31$ ; 51.7%) while 16 students (26.7%) reported that they considered themselves good at English vocabulary. Some students (13-21.7%) believed that they were poor at English vocabulary.

### 2.2. Instruments

The data collection instruments consisted of the Second Language Tolerance of Ambiguity Scale (SLTAS) (Ely, 1995) with some embedded demographic questions and the Vocabulary Levels Test (Schmitt et al., 2001). The version of SLTAS used in this study had 12 items with a five-point Likert scale. The items aimed to measure students' agreement level with statements depicting intolerance of ambiguity in given situations. It was noted before that the SLTAS have high internal consistency with a Cronbach's alpha reliability coefficient of .84 (Kazamina, 1999).

The vocabulary Levels Test Version 2 was used to measure the receptive vocabulary knowledge of the participants. It consisted of 5 sections: the 2,000-word level; the 3,000-word level; the 5,000-word level; the 10,000-word level, and the academic vocabulary level. In each section, the participants had to match a target word with the equivalent definition. A total of 60 target words were used per section. Each section included ten groups of six words and three definitions. Each correct answer, i.e. matching each target word with its definition was given one point and the maximum score of the test was 30 points. The total number of test items was 150. The studies that gave information about the validity and reliability of the Vocabulary Levels Test (Read, 2000; Schmitt et al., 2001) suggested that the test measured what it intended to measure and was consistent in its measurements. The reliability indices (Cronbach's alpha) for all of the levels sections were high as illustrated by Table 2 (Read, 2000; Schmitt et al., 2001).

**Table 2.** Reliability of the levels sections (Cronbach's alpha)

Level	Number of items	Cronbach's Alpha
2000	30	.922
3000	30	.927
5000	30	.927
10000	30	.924
Academic	30	.960

### 2.3. Data collection procedures

The present study was conducted in an undergraduate EFL teacher training department at a state university in Turkey in the spring term of the 2014-2015 academic year. The Second Language Tolerance of Ambiguity Scale was administered to the freshmen enrolled in the department. Immediately after the scale, all the freshmen voluntarily completed the Vocabulary Levels Test. There was a time limit of 125 minutes for the whole test.

### 2.4. Data analysis

The data were initially checked for normality assumptions for parametric tests. Both Kolmogorov-Smirnov ( $p < .180$ ) and normal Q-Q plot indicated a normal distribution within the data, fitting neatly into a normal distribution. The data were analyzed descriptively using the SPSS 21 (Statistical Package for the Social Sciences) Software. The mean scores and standard deviations were found for the scale items through a descriptive analysis. Then, the values of independent samples tests and one-way analysis of variance were computed in order to see the correlations between the dependent and independent variables.

## 3. Results

### 3.1. How tolerant/intolerant are EFL learners of ambiguity?

To determine the level of ambiguity of tolerance of the participants, descriptive statistics were utilized. The participants were told that the items in the SLTAS explore their reactions to statements portraying intolerance of ambiguity in some language learning situations. That is, agreement with an item was a sign of intolerance. Thus, it was reasonable to consider a mean of 3.00 as a dividing line between tolerance and intolerance. Any value above the dividing line would be a sign of lower levels

of tolerance whereas those below would point to more tolerance according to their distance to the mean score of 3.00. The participants' mean scores from the SLTAS are presented in Table 3.

**Table 3.** Ambiguity Tolerance scores from the SLTAS

	N	Mean	SD
When I'm reading something in English, I feel impatient when I don't totally understand the meaning.	60	2.80	1.02
It bothers me that I don't understand everything the teacher says in English.	60	3.03	1.17
When I write English compositions, I don't like it when I can't express my ideas exactly.	60	2.31	1.01
It is frustrating that sometimes I don't understand completely some English grammar	60	3.21	1.09
I don't like the feeling that my English pronunciation is not quite correct.	60	2.80	1.11
I don't enjoy reading something in English that takes a while to figure out completely.	60	3.20	1.03
It bothers me that even though I study English grammar, some of it is hard to use in speaking and writing.	60	2.96	1.20
When I'm writing in English, I don't like the fact that I can't say exactly what I want.	60	2.50	1.04
It bothers me when the teacher uses an English word I don't know.	60	2.88	1.09
When I'm speaking in English, I feel uncomfortable if I can't communicate my ideas clearly.	60	2.26	1.17
I don't like the fact that sometimes I can't find English words that mean the same words in my own language.	60	2.46	1.09
One thing I don't like about reading in English is having to guess what the meaning is.	60	3.21	.99
<b>TOTAL AMBIGUITY TOLERANCE SCORE</b>	60	2.79	1.08

The participants reported a level of tolerance of ambiguity that was a little below the mid-point ( $M = 2.79$ ,  $SD = 1.08$ ). This value indicated that the participants, generally, did not show high tolerance/intolerance of ambiguity, neither welcoming without inquiring nor being hindered by insufficient linguistic information. Nevertheless, an item-by-item analysis of the SLTAS indicated a mean range between 3.21 and 2.26, which showed the possibility that learners differ in their levels of ambiguity tolerance (Ehrman, 1999; El-Koumy, 2000; Ely, 1995). A K-means cluster analysis was conducted to investigate whether participants can be divided into such ambiguity groups as low, moderate, and high. The result of the analysis demonstrated that the participants can be categorized into three different clusters in terms of their AT scores (See Table 4).

**Table 4.** Clusters of students according to their tolerance of ambiguity

Ambiguity Cluster	N	% of Total N	Mean	SD	Minimum	Maximum
High (H)	12	20.0%	17.75	2.92	11.00	20.00
Moderate (M)	30	50.0%	25.03	2.51	22.00	29.00
Low (L)	18	30.0%	33.88	3.23	30.00	40.00
Total	60	100.0%	26.23	6.40	11.00	40.00

An analysis of variance (ANOVA) between the three groups validated that participants clustered in three groups were different from one another ( $p < .000$ ) with regard to their ambiguity tolerance. The differences are presented in Table 5.

**Table 5.** Differences between three AT clusters

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1961.739	2	980.869	122.880	.000
Within Groups	454.994	57	7.982		
Total	2416.733	59			

To sum up, descriptive statistics, together with cluster analysis and analysis of variance, indicated three different groups of participants in terms of their AT. The majority of the participants ( $n = 30$ ; 50.0 %) had moderate levels of tolerance ( $M = 25.03$ ,  $SD = 2.51$ ). Some of the participants ( $n = 18$ ; 30.0 %) had low levels of tolerance ( $M = 33.88$ ,  $SD = 3.23$ ), whereas a nearly similar proportion ( $n = 12$ ; 20.0 %) reported that they could tolerate ambiguity to a great extent ( $M = 17.75$ ,  $SD = 2.92$ ). Therefore, it can be deduced that there are variations among EFL learners regarding their level of ambiguity tolerance.

### 3.2. *Is there any gender-related difference in tolerance of ambiguity of EFL learners?*

This study also aimed to discover whether gender plays any role in tolerance of ambiguity of EFL learners. First, an analysis of frequency was conducted to see the distribution of male and female participants to each of the already determined tolerance groups. The results are illustrated in Table 6.

**Table 6.** Distribution of males and females to different tolerance groups

Tolerance group	Male	%	Female	%
Low	4	22.22	14	77.77
Moderate	8	26.66	22	73.33
High	7	58.33	5	41.66
Total	19	100	41	100

A great number of female EFL learners fell into low (77.77 %) and moderate (73.33 %) tolerance groups whereas these figures were low with male EFL learners (22.22 % and 26.66 % respectively). 7 of 19 male EFL learners (58.33 %) had high tolerance of ambiguity whereas the number of female learners in this tolerance group was five (41.66 %). It is clear from the table that female EFL learners had lower levels of tolerance of ambiguity in foreign language learning. However, an independent-samples t-test was performed so as to find out whether there is any significant gender-related difference in tolerance of ambiguity of the participants. The results are shown in the table below.

**Table 7.** Gender differences in tolerance of ambiguity

	Gender	N	Mean	SD	MD	t	df	Sig.
Ambiguity Score	Female	41	27.31	5.52	-3.4222	-1.973	58	.053
	Male	19	23.89	7.60				

According to the table, there was no statistically significant difference between male ( $M = 23.89$ ,  $SD = 7.60$ ) and female participants' ( $M = 27.31$ ,  $SD = 5.52$ ),  $t$  (58) = -1.973,  $p = .053$ ,  $d = 0.5$  ambiguity tolerance levels with a medium effect size. That is to say, gender did not have any significant impact on the EFL learners' ambiguity tolerance levels.

### 3.3. Does level of tolerance of ambiguity of EFL learners affect their receptive vocabulary knowledge?

The present study also aimed at exploring whether level of ambiguity tolerance has any significant impact on EFL learners' receptive vocabulary knowledge. In this regard, the mean scores of the three tolerance groups were compared through one-way analysis of variance (One-way ANOVA). In Table 8, descriptive statistics (mean scores and standard deviations) for the three groups are presented.

**Table 8.** Vocabulary knowledge according to tolerance of ambiguity

Tolerance group	Mean	N	SD
High	108.91	12	22.12
Moderate	96.90	30	19.90
Low	89.83	18	23.64
Total	97.18	60	22.17

According to the table, it seemed that the more tolerant EFL learners were of ambiguity, the more receptive vocabulary knowledge they had in a foreign language. However, the results of the one-way analysis of variance revealed that there was no statistically significant difference at the  $p < .05$  level among the three tolerance groups in terms of vocabulary knowledge:  $F (2,57) = 2.83$ ,  $p = .067$ . The effect size, calculated using eta squared, was .09.

**Table 9.** Analysis of Variance: Vocabulary knowledge and AT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2626.867	2	1313.433	2,838	.067
Within Groups	26384.117	57	462.879		
Total	29010.983	59			

### 3.4. Is tolerance of ambiguity related to self-perceived achievement of Turkish EFL learners in foreign language vocabulary?

Mean scores and standard deviations were calculated to see the self-perceived achievement of the participants with regard to the previously identified tolerance groups. The descriptive statistics can be seen in the table below.

**Table 10.** Perceived achievement in vocabulary according to tolerance of ambiguity

Tolerance group	Mean	N	SD
Moderate	2.26	30	.69
High	2.16	12	.50
Low	1.61	18	.71
Total	2.05	60	.69

The table shows the difference among three different tolerance groups in self-perceived vocabulary achievement, suggesting that EFL learners who have moderate level of ambiguity tolerance perceived themselves to be more successful in foreign language vocabulary. The learners with low tolerance of ambiguity, on the other hand, reported the lowest level of self-perceived achievement. In order to

understand the relationship between tolerance of ambiguity and self-perceived achievement in foreign language vocabulary, a one-way between-groups analysis of variance was conducted. According to Table 11, there was a statistically significant relationship at the  $p < .05$  level between tolerance of ambiguity and perceived achievement in foreign language vocabulary:  $F (2, 57) = 7.05$ ,  $p = .002$ . The eta squared statistic (.17) indicated a large effect size.

**Table 11.** Analysis of Variance: perceived achievement in vocabulary and AT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	479.453	2	239.727	7,053	.002
Within Groups	1937.280	57	33.987		
Total	2416.733	59			

#### 4. Discussion

This study aimed to investigate how tolerant are Turkish EFL learners of foreign language ambiguities. The findings of the study demonstrated that the EFL learners had a moderate level of ambiguity tolerance neither welcoming without inquiring nor being hindered by insufficient linguistic information. This is in keeping with the studies that have explored EFL learners' level of ambiguity tolerance (Erten & Topkaya, 2009; Kazamina, 1999). In the study, the EFL learners were categorized into three different clusters with regard to their ambiguity scores on the grounds that individuals may show various levels of tolerance to ambiguity (Ehrman, 1999; El-Koumy, 2000; Ely, 1995) and it seems from the findings of the current study that learners tolerate ambiguity differently (Erten & Topkaya, 2009).

The study also explored the impact of gender on tolerance of ambiguity of EFL learners. According to the findings, gender did not have any significant impact on the EFL learners' ambiguity tolerance levels. Therefore, the findings of the study contradict the related literature (Maubach & Morgan, 2001; Erten & Topkaya, 2009; Marzban et al., 2012) to a certain extent despite showing parallel results with those of some previous studies (Kamran, 2011; Kissau, 2006) that identified no gender-related difference in EFL learners' ambiguity tolerance levels.

Understanding the relationship between tolerance of ambiguity of EFL learners and their vocabulary knowledge was another aim of the present study. The results indicated that there was no statistically significant difference among three AT groups in terms of their receptive vocabulary knowledge although it seemed that the more tolerant EFL learners were of ambiguity, the more receptive vocabulary knowledge they had in a foreign language.

Another interest of this study was to explore whether tolerance of ambiguity is related to self-perceived achievement of Turkish EFL learners in foreign language vocabulary. It was found that there was a significant relationship between tolerance of ambiguity and perceived achievement in foreign language vocabulary. EFL learners who have moderate level of ambiguity tolerance perceived themselves to be more successful in foreign language vocabulary. The learners with low tolerance of ambiguity, on the other hand, reported the lowest level of self-perceived achievement. This is in line with the previous research that revealed a positive influence of AT on language learning achievement (Chapelle & Roberts, 1986; Erten & Topkaya, 2009; Naiman et al., 1978; Lori, 1990). Evidently, language learners who can handle the ambiguities of learning a new language moderately feel themselves more successful in foreign language vocabulary learning. In this sense, the result supported the favored moderate level of ambiguity tolerance (Ehrman, 1999; Ely, 1995).

## 5. Conclusions

This study attempted to probe the ambiguity tolerance levels of EFL learners and to determine likely relationships between ambiguity tolerance and other variables such as gender, vocabulary knowledge and perceived achievement in foreign language vocabulary. Based upon the findings and discussion presented, there is a strong case for concluding that learners in an EFL context have a moderate level of ambiguity tolerance. The findings also suggested that gender did not have any significant impact on EFL learners' tolerance of ambiguity. Another facet of ambiguity that has been probed in this study was its relationship with foreign language vocabulary knowledge. The findings revealed that there was no statistically significant difference among three AT groups in terms of their receptive vocabulary knowledge although it seemed that the more tolerant EFL learners were of ambiguity, the more receptive vocabulary knowledge they had in a foreign language. The last concern of the present study was to investigate the interaction between tolerance of ambiguity of EFL learners and their self-perceived achievement in foreign language vocabulary. A significant relationship between these variables was detected, which enables us to conclude that EFL learners who have moderate level of ambiguity tolerance feel themselves more successful in foreign language vocabulary learning.

In the light of the results, some pedagogical implications can be suggested. The realization of the strong influence of ambiguity tolerance on foreign language learning is of great value and should lead to teachers' alterations in planning and implementation of courses so as to better help the language learners overcome psychological barriers. If learners are well informed about classroom procedures, they will feel more relaxed, self-assured and motivated in the language classroom (Dörnyei, 2005; Williams & Burden, 1997), which may in return help lower tolerance of ambiguity. The present study demonstrates that tolerance of ambiguity is closely connected with perceived success in foreign language vocabulary. Therefore, the use of ambiguity reducing strategies by teachers is of essential importance. As leading members in learning contexts, teachers are supposed to have an important role in assisting learners with their struggle for success in language learning especially when learners encounter with ambiguities. They should raise learners' consciousness of methods, procedures, and teaching content as well.

As for the limitations of the study, the participants were restricted to 60 EFL learners from one educational context. Thus, it would be better to carry out a study with larger samples from diverse educational contexts in further research. Moreover, the scope of the study was confined to the descriptive data obtained from the Second Language Tolerance of Ambiguity Scale (SLTAS) and the Vocabulary Levels Test (VLT) designed to measure only receptive vocabulary knowledge. Further research may be focused on the investigation of the relationship between ambiguity tolerance and different variables in the Turkish context.

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## İngilizceyi yabancı dil olarak öğrenenlerin belirsizlik hoşgörülerini ve sözcük bilgileri arasındaki ilişkinin incelenmesi

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### Öz

Belirsiz durumların yaygınlığından dolayı yeni bir dil öğrenmek bilinmeyen bir arazi keşfetmeye benzer. Dil öğrenmeyi engelleyen ya da kolaylaştırınan belirsizlik hoşgörüsü önemli bir öğrenme stili olarak kabul edilir. Bu çalışmanın amacı, İngilizceyi yabancı dil olarak öğrenenlerin belirsizlik hoşgörülerinin sözcük bilgilerini etkileyip etkilemediğini araştırmayanın yanı sıra onların yabancı dil belirsizliklerine karşı ne kadar hoşgörülü/hoşgörüsüz olduklarını anlamaktır. Çalışma ayrıca İngilizceyi yabancı dil olarak öğrenenlerin belirsizlik hoşgörülerinde cinsiyete dayalı bir fark olup olmadığını incelemeyi amaçlar ve belirsizlik hoşgörüsünün İngilizceyi yabancı dil olarak öğrenen Türk üniversite öğrencilerinin yabancı dil sözcük öğrenimine ilişkin başarı algıları ile ilişkili olup olmadığını araştırır. Bu çalışma Türkiye'de bir devlet üniversitesinde İngilizce Öğretmenliği Programı'na kayıtlı 60 birinci sınıf öğrencisi ile yürütülmüştür. Veri toplama araçları İkinci Yabancı Dil Belirsizlik Hoşgörüsü Ölçeği ve Sözcük Seviyeleri Testi'nden oluşmaktadır. Veriler SPSS 21 yazılımı kullanılarak betimsel olarak analiz edilmiştir. Çalışmanın bulguları İngilizceyi yabancı dil olarak öğrenenlerin öğrenme sürecinde genel olarak orta düzeyde belirsizlik hoşgörüsüne sahip olduklarını ve cinsiyetin belirsizlik hoşgörüsü üzerinde önemli bir etkiye sahip olmadığını ortaya çıkarmıştır. Belirsizlik hoşgörüsü ile sözcük bilgisi arasında anlamlı bir ilişki bulunmazken, öğrencilerin yabancı dil sözcük öğrenimine ilişkin başarı algıları ile belirsizlik hoşgörülerleri arasında anlamlı bir ilişki tespit edilmiştir. Bulgular ışığında sınıf içi uygulamalara ve bu konuda yapılabilecek araştırmalara ilişkin öneriler sunulmuştur.

**Anahtar sözcükler:** Belirsizlik hoşgörüsü; cinsiyet farklılığı; sözcük bilgisi; İngilizceyi yabancı dil olarak öğrenenler, yabancı dil öğrenimi

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